



## INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

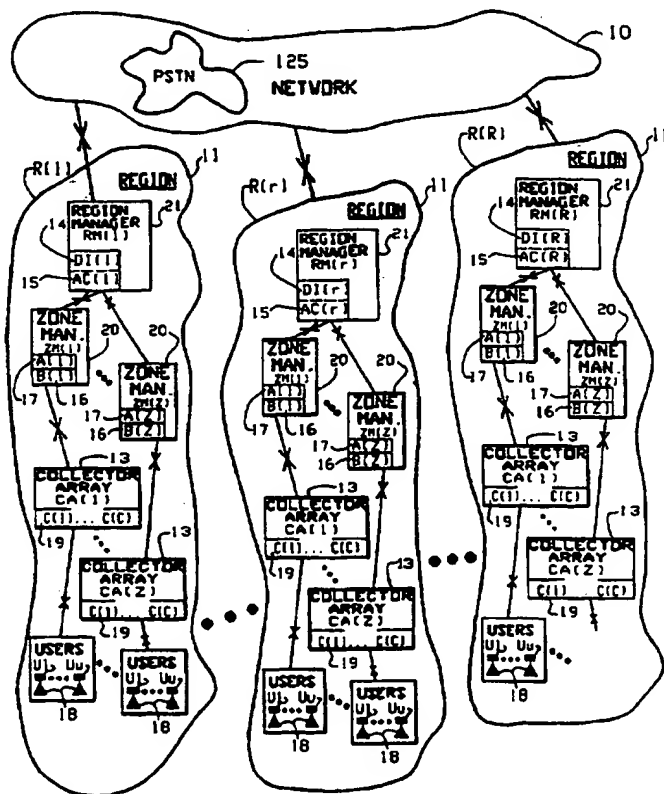
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(21) International Application Number: PCT/US96/17174		(81) Designated States: AL, AM, AT, AU, AZ, BB, BG, BR, BY, CA, CH, CN, CZ, DE, DK, EE, ES, FI, GB, GE, HU, IL, IS, JP, KE, KG, KP, KR, KZ, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, TJ, TM, TR, TT, UA, UG, UZ, VN, ARIPO patent (KE, LS, MW, SD, SZ, UG), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG).	
(22) International Filing Date: 15 October 1996 (15.10.96)			
(30) Priority Data: 08/544,913 18 October 1995 (18.10.95) US			
(71) Applicant: CELLULAR TELECOM, LTD. [US/US]; 460 East Middlefield Road, Mountain View, CA 94538 (US).			
(72) Inventors: HOWARD, David, Amundson; 917 Sierra Vista #J, Mountain View, CA 94043 (US). SMITH, Bruce, Denis; 238 Oak Grove, Atherton, CA 94027 (US). COATES, Karen, Evelyn; 1562 Valley Crest Drive, San Jose, CA 95131 (US). VASTANO, John, Andrew; 3431 Rambow Drive, Palo Alto, CA 94306 (US).		Published With international search report. Before the expiration of the time limit for amending the claims and to be republished in the event of the receipt of amendments.	
(74) Agent: LOVEJOY, David, E.; Fliesler, Dubb, Meyer & Lovejoy, Suite 400, Four Embarcadero Center, San Francisco, CA 94111-4156 (US).		(88) Date of publication of the international search report: 29 May 1997 (29.05.97)	

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(54) Title: METHOD AND APPARATUS FOR WIRELESS COMMUNICATION EMPLOYING COLLECTOR ARRAYS

## (57) Abstract

A cellular communications system that includes forward channel communications to users and corresponding reverse channel communications from mobile users. The users travel from one area to another area over one or more zones. The forward channel communications are broadcast directly to users in a broadcaster zone. The reverse channel communications from users are not returned directly but are first collected at locations arrayed over the broadcaster zone. After collection, the reverse channel communications are forward to complete the full duplex communications. The forward channel communications are point to multipoint while the reverse channel communications are multipoint to point. The communication system separately handles the point to multipoint forward path as a direct broadcast and the multipoint to point reverse path using multiple collection points. Since the forward and reverse paths are separately configured, the present invention optimizes both the forward and reverse paths.



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# INTERNATIONAL SEARCH REPORT

International Application No

PC 1/US 96/17174

A. CLASSIFICATION OF SUBJECT MATTER  
IPC 6 H04Q7/36

According to International Patent Classification (IPC) or to both national classification and IPC

## B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 6 H04Q H04B

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
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☒ Further documents are listed in the continuation of box C.

☒ Patent family members are listed in annex.

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Date of the actual completion of the international search

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International Application No  
PC1/US 96/17174

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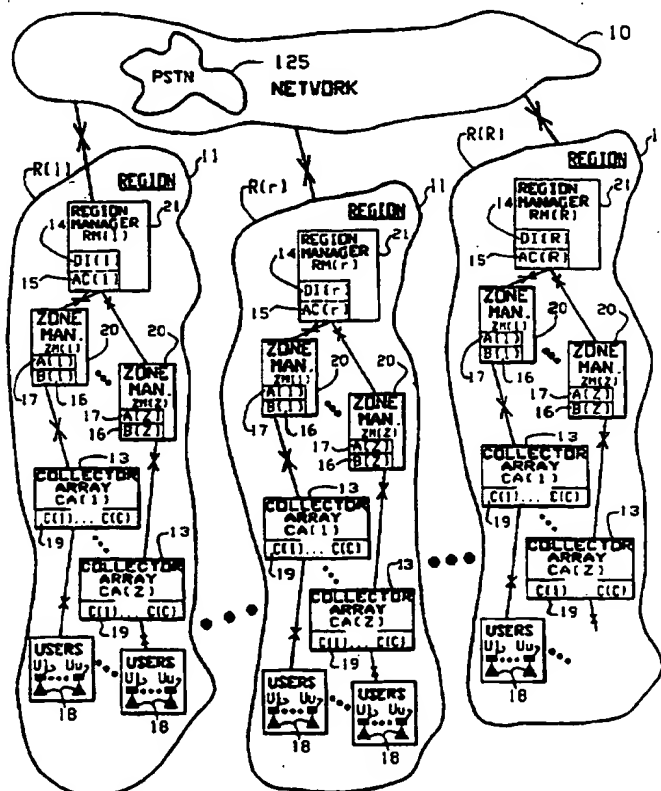
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Date of the actual completion of the international search

24 March 1997

Date of mailing of the international search report

18. 04. 97

Name and mailing address of the ISA

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